AMSAT News Service Weekly Bulletins
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AMSAT-NA SPACE SYMPOSIUM SUMMARY

HR AMSAT NEWS SERVICE BULLETIN 315.01 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 11, 1989
TO ALL RADIO AMATEURS BT

AMSAT-NA Space Symposium Held In Des Moines, IA Nov. 3-5th; A GREAT SUCCESS!

The Radio Amateur Satellite Corporation (AMSAT-NA) held its 1989 Space Symposium and Annual Meeting this past weekend, Nov. 3-5th, at the Meredith Corporation's facilities in Des Moines, IA. This facility provided an excellent meeting place for the hosting organization, the Central Iowa Technical Society (CITS), to sponsor this prestigious group of amateur radio's finest. Radio amateurs from all around the world -- Europe, Mexico, South America, New Zealand, and the Philippines -- traveled to Des Moines to be part of this remarkable event. Starting off the Symposium on Saturday morning was Jan King (W3GEY), Bob McGwier (N4HY), Tom Clark (W3IWI), Jon Bloom (KE3D), and Harold Price (NK6K). They presented a detailed run down of the MICROSAT program. NK6K gave an interesting review of digital-store-and-forward software which he, N4HY, and Jeff Ward (G0/K8KA) are developing. Following the PACSAT discussion, Stan Sjol (W0KP) and Bill Clapp of Weber State College (WSC) summarized the CCD camera experiment and the other scientific experiments which will fly aboard the WEBERSAT MICROSAT. Also included was a sample of a high resolution picture taken with the WSC CCD. Rounding out the morning session was Dick Jansson (WD4FAB) on the Phase IV geostationary satellite design effort. After reconvening from lunch, Courtney Duncan (N5BF), AMSAT-NA VP of Field User Projects, talked about the many exciting activities related to OSCAR-13, eg., Operations Nets, ZRO Tests, and the upcoming MICROSAT launch. Then came Antonio Franklin (N6NKF) and his discussion of his satellite tracking program known as InstantTrack 1.0. Even Bob McGwier (N4HY), the author of QuikTrak 4.0, was impressed! After Antonio came a series of papers about exciting scientific missions in which AMSAT and OSCAR satellite users are being invited to provide a major support role. These projects included the Solar Sail, Lunar Polar Orbiter, and NASA's Small Expendable-Tether satellite experiment. Following these papers came Jeff Wallach (N5ITU), Chairman of the Dallas Remote Imaging Group (DRIG), who presented an paper about high resolution WX satellite image processing. Showing slides of WX satellite pictures processed on his IBM-AT computer, many of the Symposium attendees were overwhelmed by the unbelieveable pictures that N5ITU's IBM-AT produced. And finishing the day with a lot of good natured humor was Bill Brown (WB8ELK) with his excellent presentation about ATV experiments with balloons. Bill showed a video tape of his latest high-altitude balloon experiments in which one of his balloons reached an altitude of 133,000 ft! Attendees were awestruck at the sight of seeing the curvature of the earth at 133,000 ft! Most interesting was the trip back to earth after the balloon burst and the impending impact!

After a "attitude re-adjustment," the Symposium attendees returned to the Meredith Corporation meeting facilites for the banquet and awards ceremonies. Over 50 awards were presented to AMSAT volunteers to recognize their service to the AMSAT organization, the MICROSAT program, and the furtherance of OSCAR satellite program.

For those who missed the AMSAT Space Symposium, in the next issue of AMSAT Journal, the proceedings of the Symposium will be included so that AMSAT-NA members can find out what went on. For a complete summary of the Board of Directors meetings held on Sunday and Monday, see ASR #192 which will be

mailed December 1st.

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SB ALL @ AMSAT $ANS-315.02
FUIJI-OSCAR-12 IS QRT

HR AMSAT NEWS SERVICE BULLETIN 315.02 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 11, 1989
TO ALL RADIO AMATEURS BT

JARRL "Turns Off" FUJI-OSCAR-12 Forever

The following announcement was made by JARRL last week:

November 1st, 1989 The Japanese Amateur Radio League

"Amateur satellite JAS-1/FUJI-OSCAR 12 has operated for 3 years. Power genera-
tion has, however, decreased with time, and at present, its average power
generation is less than 3 watts, which is difficult to keep even at Mode D,
the minimum power requirement.

Therefore, after deliberation, it has been decided that the operation of FO-12
should be terminated and ending time is scheduled for Nov 5th, 1989, until
when a few operation of short duration will be available, if possible.

It is our great pleasure to realize that we were able to provide chances of
satellite communication, especially, the flying BBS, and taking this
opportunity, we thank all satellite enthusiasts for having connected with the
bird.

Now, we are preparing the next bird JAS-1B, as the successor of FO-12, which
has the same mission configuration as that of FO-12, except for its orbit.
Please look forward to its launch in February 1990."

At the present time the AMSAT News Service (ANS) has no further details
concerning this announcement. For those wishing to read more about JAS-1B,
see the September issue of the ARRL's QEX magazine.

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SB ALL @ AMSAT $ANS-315.03
UOSAT BULLETIN

HR AMSAT NEWS SERVICE BULLETIN 315.03 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 11, 1989
TO ALL RADIO AMATEURS BT

UoSAT Bulletin 203

**** UoSAT-OSCAR-11 BULLETIN - 203 3rd November 1989 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

** PLANS FOR UOSAT-D PCE **

This is a short report to keep potential users up to date concerning plans for
the UoSAT-D PACSAT Communications Experiment (PCE).

The PCE will be an open-access amateur radio store-and-forward system.
Although there will certainly be some gateway stations (since they are
efficient and cost-effective), any correctly-equipped amateur station will be
able to use the PCE.

A groundstation for the PCE must have a 9600 bit/sec FSK modem compatible with the G3RUH modem. This modem should be connected to a Mode-J satellite station: 145.975 MHz uplink and 435.070 MHz downlink. This modem and RF equipment must be connected to a packet TNC. Ground station antenna and RF power requirements should be modest; final satellite receiver sensitivity and antenna pattern measurements are now under way at UoS.

To access the PCE Packet Bulletin Board System (PBBS), you will need special software running on your groundstation computer. The PACSAT Groundstation Software will communicate with the PCE over your AX.25 TNC using high-level protocols currently under development by Jeff Ward (G0/K8KA) and Harold Price (NK6K). This system -- requiring you to connect your TNC to a host program and not just to a terminal emulator -- will provide a powerful electronic mail service eliminating many of the frustrations experienced by users of the existing ground-based PBBS network.

(The standard PACSAT protocols will also be implemented on the AMSAT-NA Microsats - although NOT using the 9600 bit/sec FSK modulation!)

Full details of the PACSAT protocols will be published as soon as they are available. A Broadcast Protocol specification (for transmission of bulletins, etc.) has already been published in the proceedings of DATASPACE '89. When published, the protocol specifications will allow software authors to begin implementing the PACSAT Ground Station Software for different computers. It is also likely that a PACSAT Ground Station Software implementation for IBM-PC compatible computers will be produced by UoSAT and AMSAT-NA and made available to other amateurs.

(de G0/K8KA @ GB3UP.UK.EU)

*** UoSAT-OSCAR-9 Reports ***

Thanks to all those who have sent in reports and telemetry from the last days of UO-9. So far the last telemetry received is from Dave Guimont, Jr. WB6LLO in San Diego, California who recorded telemetry at 05:15 UTC, about 2.5 hours before the satellite burned up.

Reports received from:-

JR3FRF, WB6LLO, Howard Day, Angus Newman, G3IOR, F1GRR, DL6DBN, HB9BEQ, ZL1TRE, Birger Lindholm, K9CIS (Richland Community College)

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SB ALL @ AMSAT $ANS-315.04
WB6GFJ'S QTH SUSTAINS DAMAGE

HR AMSAT NEWS SERVICE BULLETIN 315.04 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 11, 1989
TO ALL RADIO AMATEURS BT

Ross Forbes (WB6GFJ), President of Project OSCAR, Home Sustains Severe Damage

Ross Forbes's (WB6GFJ) house, located in the Palo Alto, CA area, sustained severe damage two weeks ago due to the San Francisco earthquake. Although Ross was not hurt nor were his parents hurt during the fifteen second long earthquake, since then Ross's entire efforts have been focused on getting his home repaired. As a consequence, Ross has asked the AMSAT News Service (ANS) to inform OSCAR satellite enthusiasts that during this difficult period that WB6GFJ QTH is being repaired, along with his UOSAT-11 Digital Communication Experiment (DCE) Gateway station repaired, HE WILL NOT BE ABLE TO ANSWER ANY INQUIRIES SENT TO PROJECT OSCAR. If you have written to Ross recently requesting information concerning satellite tracking programs or any other topic and have not received a reply, please be advised that it may be several weeks before Ross can do so. Under normal circumstances, Ross has always had a

policy of being very prompt about answering letters and inquiries to Project OSCAR. But with his house so severely damaged, Ross can't begin to start to think about anything else. So "please stand by" as WB6GFJ gets his QTH back in order.

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SB ALL @ AMSAT $ANS-315.05
AMSAT-DL TO START ON PHASE III-D

HR AMSAT NEWS SERVICE BULLETIN 315.05 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 11, 1989
TO ALL RADIO AMATEURS BT

AMSAT-DL To Commence Work On The New Phase III-D OSCAR

AMSAT-DL President Karl Meinzer (DJ4ZC) is pleased to announced that he has received a substantial funding for the AMSAT-DL Phase III-D satellite. This funding comes from the West German government and is provided for research in the area of satellite communications. Phase III-D, as outlined by Karl's paper presented at the 1988 AMSAT-UK Colloquium will depart quite radically from its predecessors -- it is designed to have an RF ouput of 250 watts! This new OSCAR satellite will weigh somewhere between 200 to 400 kg and will be placed in a high-altitude Molniya orbit, similar to OSCAR-13's orbit. AMSAT-NA congratulates Karl and AMSAT-DL on the start of a new OSCAR Satellite program.

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SB ALL @ AMSAT $ANS-315.06
AMSAT SHORT BURSTS

HR AMSAT NEWS SERVICE BULLETIN 315.06 FROM AMSAT HQ
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TO ALL RADIO AMATEURS BT

AMSAT Short Bursts

For those wishing to obtain a copy of Antonio Franklin's (N6NKF) new satellite tracking program, InstantTrack 1.0, contact AMSAT-NA HQ's at (303) 589-6062 for more information.

OSCAR-13 OPERATING SCHEDULE

MODE B	MA 060 to MA 160	NOTE: MODE S Operation will
MODE JL	MA 160 to MA 195	return Nov. 23rd after
MODE B Beacon	MA 195 to MA 200	the next AO-13 attitude
MODE B	MA 200 to MA 240	re-adjustment.
OFF	MA 240 to MA 060	

AMSAT-NA is pleased to announce the availability of a new AO-13 PSK telemetry decoding program for the IBM-PC or compatibles that have a minimum of 256K RAM, a 360K disk-drive, a Serial port, and either a monochrome or color monitor. This new program was written by Jack Mathias (W9FMW) and runs in conjuction with the G3RUH 400 PSK modem. This menu driven program will decode every "page" of telemetry from AO-13. If you would like more information about obtaining this program, contact AMSAT-NA HQ's at (301) 589-6062.

Doug Loughmiller(KO5I), President of AMSAT-NA, wants to inform all AMSAT members that the new AMSAT BBS will now be part of the Dallas Remote Imaging Group's (DRIG) BBS at (214) 394-7438.

If you are building one of the TAPR or G3RUH 1200 Baud PSK modems so that you will be ready for the launch of the MICROSATs, a good way to "bench" test your modem is with a tape cassette which Jack Mathias (W9FMW) is offering. You can use this cassette to test out your modems without having to have a "live"

signal. Also, you can be sure that the modem and the rest of your system is operating correctly before the launch of the MICROSATs early next year. So if you would like to find out more information about how to obtain the W9FMW TEST TAPE FOR TAPR/G3RUH MODEMS, contact AMSAT-NA HQ's at (301) 589-6062.

L de DB2OS & VK5AGR 02Nov89: ** AMSAT OSCAR-10 Status Report **

Please DO NOT USE the Mode B transponder on AO-10 until 20-Nov-89 since AO-10 does not have sufficient solar illumination to support the general use of the Mode-B transponder at this time. If stations will refrain from using the Mode-B transponder until that time, then the transponder can be made available for general use on 20-Nov-89 from MA 25 to MA 255. Once AO-13 operations begin on 20-NOV-89, DO NOT USE the Mode B transponder from MA 0 to MA 25 as AO-10 will be in eclipse during this period until 29-Nov-89.

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